

REMARKS

Claims 33-36 and 38-48 are pending. Applicants have carefully reviewed the arguments presented in the Office Action and respectfully request reconsideration of the claims in view of the remarks presented below.

In the aforesaid Office Action, the Examiner rejected claims 33-36 and 38-41 under 35 U.S.C. § 112, first paragraph, stating that there is no explicit or implicit support for a “fragmented acrylate polymer film” in the original disclosure. However, the Examiner’s attention is directed to page 15, line 7 (paragraph [0022]), which discloses that:

“In a presently preferred embodiment, the plasma polymerized carboxylate film comprises an acrylate or acrylate-like polymer layer deposited onto the ePTFE by exposing the ePTFE film to a plasma, which in a presently preferred embodiment is an acrylic acid plasma. One of skill in the art will recognize that some fragmentation of the acrylate typically occurs during plasma polymerization, resulting in an acrylate-like polymer layer of fragmented acrylate.”

Therefore, “fragmented acrylate polymer film” is supported by the specification as filed, and Applicants respectfully submit that claims 33-41 (which were rejected only under 35 U.S.C. § 112, first paragraph in the aforesaid Office action) are thus allowable.

The Examiner rejected claims 42-48 under 35 U.S.C. § 103(a) as being unpatentable over Zhong (U.S. Patent No. 6,048,620) alone, stating in the Response to Arguments section that, with regards to the rejection of claim 42, the product is obvious despite the process limitation of plasma polymerizing the functionalized layer, and the

language of the claims does not preclude the use of a polyfunctional crosslinking agent (Applicants having argued that the plasma polymerization process provides the energy required to produce the polymerized acrylic acid film which covalently bonds to the substrate/first layer without requiring a polyfunctional crosslinking agent as used by Zhong).

However, claims 42 and 43 require a film of plasma polymerized acrylic acid. The film is a structural limitation and not a process limitation, and the resulting device having the film is structurally different than Zhong. Although claims 42 and 43 do not preclude the use of a polyfunctional crosslinking agent, because Applicant's film doesn't need a polyfunctional crosslinking agent to form the covalent bond, the structure recited in claims 42 and 43 is structurally different than Zhong. Specifically, Zhong discloses applying to a substrate a first coating which includes a dispersion or emulsion of a polymer containing an organic acid functional group, and an excess of a polyfunctional cross-linking agent which is reactive with the organic acid groups of the dispersed/emulsified polymer to crosslink the polymer and covalently bond to the subsequently applied second coating (see col. 6, lines 12-21). Therefore, the (structural) species that forms the bond is different. Namely, in Zhong, the polyfunctional cross linking agent forms the covalent bond, whereas in Applicant's claims, the plasma polymerized acrylic acid film forms the bond. Although the crosslinking agent in Zhong crosslinks an acrylic, Zhong discloses that it is the crosslinking agent itself, and not the acrylic polymer, which forms the bond to the second coating. In contrast, Applicant's claims 42 and 43 require that the acrylic acid film itself forms the bond (i.e., claim 42

recites a “plasma polymerized functionality covalently bonded to at least a section of a first surface of the first layer”). Therefore, even if the language of the instant claims does not preclude the use of a polyfunctional crosslinking agent, Zhong does not disclose or suggest the structure required by Applicant’s claims 42 and 43.

Zhong does not disclose or suggest that the polyfunctional crosslinking agent is a plasma polymerized acrylic acid. Although Zhong does disclose that examples of organic acid groups include carboxylic acid groups and examples of the first coating composition include acrylic copolymer dispersions, these organic acid groups and first coating compositions referred to by the Examiner relate to the dispersed or emulsified polymer of the first coating, and not to the polyfunctional crosslinking agent of the first coating. As such, these organic acid groups and first coating compositions do not relate to the chemical species in Zhong which forms a covalent bond to the adjacent layer. Therefore, Zhong does not disclose or suggest a film of plasma polymerized acrylic acid which has a thickness of about 10 to about 150 nm and which is covalently bonded to at least a section of a balloon layer/medical device substrate as required by Applicant’s claims 42/43.

Moreover, claim 44 requires that the plasma polymerized film is covalently bonded to an outer surface of the substrate. In contrast, Zhong only discloses that the first coating (which the Examiner states corresponds to the plasma polymerized functionality) has the second coating applied to an outer surface of the first coating, so that the first coating is therefore only covalently bonded to an inner surface of the second coating. Although the first coating of Zhong is on an outer surface of the medical

device/balloon, the Examiner states that that medical device/balloon part of Zhong corresponds to the second layer of the claimed invention.


Moreover, claim 46 requires a layer of adhesive between the plasma polymerized film and the second layer (i.e., agent or polymeric layer) to adhesively bond the layers together. In contrast, in Zhong, an excess of polyfunctional crosslinking agent within the first coating bonds the first and second coatings together.

In view of the foregoing, it is respectfully urged that all of the present claims of the application are patentable and in a condition for allowance. The undersigned attorney can be reached at (310) 824-5555 to facilitate prosecution of this application, if necessary.

In light of the above amendments and remarks, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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